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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
07/526,424	05/21/90	DOKTOR	K M-1226US

EXAMINER

TOPLU, L

ART UNIT	PAPER NUMBER
2316	8

DATE MAILED: 12/29/92

GIDEON GIMLAN  
SKJERVEN, MORRILL, MACPHERSON,  
FRANKLIN & FRIEL  
25 METRO DR., STE. 700  
SAN JOSE, CA 95110

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 10/2/92 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire 3 three 0 month(s), 0 days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

**Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited by Examiner, PTO-892.        | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948.                   |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.             | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____  |

**Part II SUMMARY OF ACTION**

1. ☒ Claims 1-68 are pending in the application.

Of the above, claims \_\_\_\_\_ are withdrawn from consideration.

2. ☒ Claims 1-22 have been cancelled.

3. ☐ Claims \_\_\_\_\_ are allowed.

4. ☒ Claims 23-68 are rejected.

5. ☐ Claims \_\_\_\_\_ are objected to.

6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable, ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_ has (have) been ☐ approved by the examiner, ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed on \_\_\_\_\_, has been ☐ approved, ☐ disapproved (see explanation).

12. ☐ Acknowledgment is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received  
☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

EXAMINER'S ACTION

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1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims ~~23~~ 23-68 rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 23, it is not clear what items are "corresponding". The system at best adds a record to the bottom of a table. The means for storing subsets of records and the means for recording relationships do not seem to be related to the rest of the system. Any means for adding a record will perform addition of a record. "So as to preserve said corresponding positions within said table of said one or more entity type records" is desired results and is vague. It is unclear what allows this functions. The applicant did not distinguish the invention from the prior art.

In claim 24, "the position" has no antecedent basis.

In claims 24 and 25, it is unclear how the specific fields in records relate to an apparatus. It appears to be extraneous or surplus information.

In claims 26-29, 31 and 33-38, the claims describe the nature of data stored in memory. It is unclear how the data relates to an apparatus.

Claims 30 and 32 read like a method claim. It is describing the

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operation of the device.

In claim 39, "the same singular subset" has no antecedent basis.

In claim 40, the same defects as in claim 23 is observed. Any means for adding data to a table performs an addition of a record. The claim does not particularly point out how the means for adding information is distinguished from the prior art. "So as to preserve said corresponding positions within said table of said one or more relation type records" is desired results and/or functional. It does not clearly point out what allows the performance of the stated function.

In claim 41, it is unclear how the relation instance and the entity instance specified in the path are used for locating data. "Combining" and "causing" read like steps from a method claim and are desired results. It is not clear how the entity instances are combined with relation instances. "Cross-correlated set" is inferential.

In claim 42, it is unclear how the path definition means combines entity instances with relation instances. "A desired entity instance" is inferential. The claim merely states that search paths and search results are stored in a table when a search is performed. However, this is not a method for retrieving information. The claims do not show the specifics of how information is retrieved. It is unclear how the relations being in sets is relevant to the claimed invention.

In claims 44 and 52, it is unclear what is "corresponding". All the claims do is store information and add records. It is unclear how this method is different from the prior art. "So as to preserve said corresponding positions within said entity type table of said one or more entity types" is desired results unsupported by any method or apparatus.

In claim 59, storing search path definitions in a table and retrieving the information by the search path definitions is performed by any system for information retrieval. The claims do not particularly point out what is different in the applicant's invention. Further, there is no support that the system can perform the steps of the method. It is not clear who or what is performing the steps of the method. The information about relation instances is surplus information in the context of the claim. The step of retrieving is desired results unsupported by any method or apparatus. The preamble recites a system for retrieving information stored in a relational database however, the body of the claim does not refer to the relational database again. There is no support that the system can perform the steps. In claim 67 and 68, the claims do not particularly point out the applicant's invention. As above, any means for adding records performs an adding of records. It is unclear what about the applicant's invention will perform the desired result of preserving the respective positions.

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3. 35 U.S.C. § 101 reads as follows:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title".

Claims 67 and 68 rejected under 35 U.S.C. § 101 because they are directed to non-statutory subject matter.

Claims 67 and 68 claim a relational database. A relational database is printed matter and falls within the printed matter exception to 35 USC 101.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 23-68 rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as obvious over Shimaoka et al.

regarding claims 1-40, 44-58 and 67-68, in Shimaoka et al the relation table of figure 8 is for speeding the search process. The applicant's contention that Shimaoka et al does not teach applicant's invention has no basis. Each record of the table of figure 8 is a "record". The usual way of storing records in the art is by storing records in a file one after the other. This is the basic method for storing any kind of record in a file. It is

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inherent in Shimaoka et al that the records can be stored one after the other. In connection to figure 7, in Shimaoka a source item code and an object item code are specified and the relationship between items is determined. A primary item index is determined from the source item code and item information file is referred to. As is well-known in the art, an index may be an address, a pointer, an id etc. Similarly, object item index is obtained from object item code. Then, a relation information record as shown in figure 5A is formed and registered in the relation information file. Shimaoka et al clearly shows the applicant's invention.

claims 41-43 and 59-66 are directed to searching the database using the entity instances and relationship instances. It is well-known in the art to store search paths in storage and providing tables for recording of the results. The search processing in Shimaoka et al is described in reference to figures 9A and 9B. In particular, Shimaoka et al shows three different types of search processing. 1)processing for obtaining object information from source information and a relation 2)processing for obtaining source information from object information and a relation and 3)processing for obtaining source and object information from a relation.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

Serial No. 07/526424

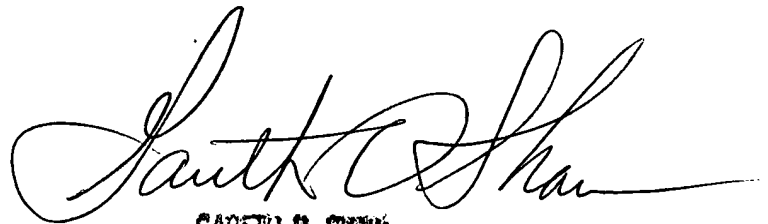
-7-

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A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucien Toplu whose telephone number is (703) 305-7774.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1751.



GARETH D. SHAW  
SUPERVISORY PATENT EXAMINER  
ART UNIT 237

L. Toplu  
December 28, 1992